

In the Specification:

Please insert before the first paragraph of the application:

This application is the national stage application of international application number PCT/DE2003/002675, filed on August 8, 2003, which claims the benefit of priority to German Patent Application 102 39 506.3, filed on August 28, 2002, incorporated herein by reference.

Please delete the paragraph on page 2, lines 8-11.

Please rewrite the paragraph on page 8, lines 8-28 as follows:

In a wafer layer 24, the sensor element 12b contains a wafer region 24b which is bonded on the glass plate 22 using an adhesive layer 26, e.g. comprising epoxy resin. The wafer region 24b contains silicon and doped regions of a pin diode 28b. An interconnect 30b extends from a connection for the diode 28b to a pad 32b at the edge of the wafer region 24b. An outer interconnect 34b produces an electrically conductive connection between the pad 32b and a solder pellet 36b on a contact area 38b.

That side of the wafer region 24b which is remote from the glass plate 28 has a glass plate region 40 which is bonded on the wafer region 24b using an adhesive layer 42.

Apart from the solder pellet 36b, the sensor element 12b contains another solder pellet 44b comprising a soft solder on a contact area 46b. There are thus two connections for the sensor element 12b, for example for a ground connection and for a signal connection.

Please rewrite the paragraph on page 9, lines 11-17 as follows:

In the exemplary embodiment, the scintillator block 50 contains regions 54a and 54b which convert X-ray radiation into visible light and which are respectively associated with a sensor element 12a or 12b. Between the regions 54a, 54b, there are reflective regions 56a to 60 which reflect visible light into the regions 54a, 54b in order to increase the sensitivity of the sensor.

Please rewrite the paragraph on page 11, lines 6-9 as follows:

Figure 5E shows the sensor chip 10 after solder pads 108 to 114 have been applied to the glass plate 40, for example the solder pads 112 and 114 bear the contact areas 38b and 4046b.